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Does one size fit all? The challenges of establishing a coordinating center for research of post-disaster needs assessment

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Abstract

Needs assessment in the wake of disasters is most significant yet highly complex and challenging. Kessler et al. propose a comprehensive disaster mental health research model. This model has several significant advantages: (1) Pre-prepared plans and resources allow rapid deployment of skilled professionals; (2) Continuity will ensure that lessons learned from one disaster will be retained and used in subsequent disasters; (3) Standardization will provide a solid basis for evaluation and comparison across events; (4) Continuous monitoring of needs over time will enable the capture of a full range of responses including delayed effects; and (5) Will provide a valuable resource for researchers in the field. At the same time, there are a number of challenges that must be considered before the establishment and implementation of the proposed center and use of standardized measures. These challenges are associated with the observation that different disasters give rise to different problems and needs; there is considerable cultural variability; and differential power and agenda of stakeholders may result in a limiting 'tunnel vision' approach that may undermine new developments, creativity, and progress. Ways to overcome these challenges and difficulties that are involved in the implementation of such a model are suggested.

Key words: disaster preparedness, needs assessment, standardization

By nature, disasters are sudden, unpredictable, and uncontrollable events. As a result, needs assessment surveys conducted during or in the immediate aftermath of disasters are designed and carried out under stressful circumstances and considerable time constraints. Needs assessment aims to carefully identify and evaluate multi-faceted urgent needs of numerous stake holders including survivors, helpers of various professions, formal and voluntary organizations as well as policy-makers, in the wake of disasters. These diverse groups of stake holders often hold different perspectives and competing agendas. For needs assessment to be useful and effective, in accurately capturing the scope, magnitude and severity of a disaster's consequences, reliable and valid design and careful implementation are called for. Attempts to satisfy these conflicting requirements often meet with impediments and at times insurmountable challenges. As a consequence of the difficulties, the accuracy and comprehensibility of needs assessments may be severely undermined and the implementation of necessary interventions may be misguided or delayed.

To address the numerous challenges associated with needs assessment, Kessler and his colleagues (Kessler, Keane, Ursano, Mokdad, and Zaslavsky, this issue) propose a disaster mental health research model to be established in the US. According to their model, a center for research on post-disaster mental health needs assessment will be established and stably funded so that it can effectively coordinate the activities of various relevant agencies involved in needs assessment. Moreover, under the framework of disaster preparedness, this center will develop standardized interviewing schedules and procedures that will be implemented in case of

disaster. As mentioned by the authors, their proposed model has been previously implemented and was recently successfully tested in several disaster situations in the US.

Kessler and his colleagues, leaders and innovators in the field of mental health epidemiology, present a convincing rationale for the need and the applicability of their proposed needs assessment model. In this lead article they thoroughly review methodological aspects of this model, including its definition of the population, sampling and data collection procedures, study design, and interviewing instruments. They also present a comprehensive and thorough review of the needs assessment literature. More specifically, they discuss the many challenges and difficulties that the implementation of their model entails. The authors also suggest diverse and sophisticated ways to creatively overcome the challenges that they identify.

Although the article is focused on needs assessment surveys, the proposed center aims to set up a comprehensive disaster management scheme. This is implied rather than explicitly stated in the article. In fact, for needs assessment to be effective it can not be separated from evaluating existing recourses and plans, while at the same time proposing novel or improved intervention strategies. Needs assessment surveys should not be divorced or isolated from subsequent interventions. Even a simple procedure such as an intake is an integral part of the intervention. Therefore, needs assessment should be conducted with clear reference to and coordination with available responses/interventions. Any needs assessment should be designed in the context of the feasible and available human and monetary resources. Accordingly the suggested central mechanism for designing and implementing needs assessment surveys should be part of a center that would systematically coordinate and manage the short- and long-term disaster interventions.

While this is easier said than done, such a model, integrating needs assessment, provision of treatment and rehabilitation as well as evaluation of these procedures was implemented by the Israeli Medical Corp. Following the 1982 Lebanon War, a longitudinal systematic needs assessment of both clinical and non-clinical sample of combatants was initiated and funded by the Israel Defense Forces (IDF) (for detail see Solomon, 1993), which also provided early and long-term interventions for traumatized veterans. The effectiveness of these procedures was later evaluated by the IDF (Solomon & Benbenishty, 1986; Solomon et al., 2005; Solomon et al., 1992; Solomon et al., 1994a). While the implementation of this model was not free of flaws, and its implication was greatly facilitated by the military setting it demonstrates an ongoing process of evaluation of the proposed model.

The Kessler et al. model (this issue) has several significant advantages. Firstly, at a time of emergency, it allows for rapid deployment of resources, since pre-prepared plans are easily accessed in these extreme circumstances. Furthermore, pre-disaster preparation will allow for the deployment of skilled and experienced professionals who can conduct needs assessment effectively while utilizing available resources for various disaster scripts. In disaster areas, knowledge is not always readily available. Often initial assessments and interventions are administered by local professionals who are not experienced in these complex activities or lack trauma specific training (e.g. Dekel et al., 2007). Moreover, in many cases local professionals themselves are primary or secondary victims of the disaster and their effectiveness as aids may be detrimentally affected. This was consistently observed in Israel during the 1991 Gulf War, where mental health professionals who were engrossed with their own survival confessed the difficulty they faced in fulfilling their professional obligations to others. Max Stern, one of Israel's leading psychiatrists asked: 'how can we be attentive to their emotions in the present situation? . . . It is difficult for us, troubled by our own fears, to listen to our patients when we have one ear tuned to a possible siren and we are thinking "is everything alright at home?"' (Solomon, 1995a, p. 54).

A second advantage of the Kessler et al. model (this issue) is the notion that a center that coordinates both needs assessment and crisis management can also ensure continuity, as it monitors the efficiency and effectiveness of the needs assessment procedure after each event. Thus, lessons learned from one event will not be forgotten when it comes to a similar event in the future, as has unfortunately been observed in numerous previous traumatic events (Solomon, 1995b). In this way, professionals will not need to re-invent the wheel with the onset of each event. Instead, they will have the opportunity for the constant re-examination and accumulation of knowledge.

A third advantage of the model deals with its use of standardization. Standardization of assessments will

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allow for comparisons of reactions and needs across disasters and events. Such comparisons may provide a solid basis for evaluating the effectiveness of various interventions, for diverse populations, under diverse conditions. This may facilitate or even promote the development and establishment of evidence based practice. Such systematic learning will guide decision-makers to make informed decisions, regarding allocation of resources and selection of the adequate intervention.

Furthermore, the proposed center will be able to monitor not only immediate reactions, but will also allow for the identification of delayed-onset difficulties, which are often overlooked by one-time needs assessment. Longitudinal studies often documented that delayed reactions may emerge years after the traumatic events (Solomon et al., 1989). Comprehensive needs assessment, therefore, must make provision for long-term assessment. Only such a center can make such long-term commitment.

A large body of data based on standardized measures will clearly be a most valuable resource for researchers in the field. It will deepen our current understanding as it will enable us to identify universal reactions to disasters, as well as differential reactions and needs related to specific populations and/or situations. It will clearly make a considerable contribution to the identification of risk factors, as well as resiliency markers.

In addition to the numerous advantages of the Kessler et al. model, there are also a number of challenges that must be considered before the establishment and implementation of the proposed center. The first challenge relates to the development and use of standardized assessment instruments that would be administered following various distinct traumatic events. Different disasters give rise to different problems and needs, which often call for different assessment procedures. The experience of individuals in a case in which they are exposed to one distinctive terror attack, as was the case in the attacks of 9/11, is markedly different from that of individuals who live in an area that has been the target of repeated terror attacks for a prolonged period of time.

Would it be plausible to assume similar outcomes following these situations? In the case of events such as 9/11, typically we would aim to identify individuals who suffer from Acute Stress Disorder (ASD) in the immediate aftermath of the event. But things are less clear, for example, for individuals who live in the West South region of Israel, who have been repeatedly exposed to terror in the form of missile attacks for the last seven years. Would it be appropriate to assess ASD in the immediate aftermath of each terror attack? Should we aim to identify acute or reactivated post-traumatic stress disorder (PTSD)? Or complicated PTSD?

The way that standardization tends to deal with such diversity is to use the common denominator approach. In these cases, often the more common, or salient outcome overshadows the less common, or less conspicuous. Consider, for example, the way in which the Vietnam War influenced the way the Diagnostic and Statistical Manual of Mental Disorders (DSM) defined PTSD and especially the dominance of the intrusion cluster in that definition (see McMillen et al., 2000). For example, some clinicians and researchers have suggested that there may be a few distinct subtypes of PTSD that are affected by the nature of the traumatic event (see Ginzburg et al., 2006). Yet, even in cases were there is growing supporting evidence for a unique outcome, such as the case of complex PTSD (e.g. van der Kelk et al., 2005), refined subtypes of PTSD are often overlooked.

One way to meet this challenge was suggested by Brown and Harris (1978). They argue that in order to understand the impact of stressful life events, investigators should use what they termed 'contextual measures' – interviews aiming to trace the surrounding 'biographically determined circumstances' of each event (p. 90). While this procedure seems less practical under the immediate post-disaster period certain understanding of the disaster's context may be achieved by a limited pilot study. This may entail in-depth interviews with community gatekeepers (e.g. health and mental health professionals, or school teachers).

Standardization can also be problematic across diverse populations. In their article, Kessler et al. (this issue) extensively discuss sampling issues concerning high risk populations. Yet, although the societies in the US, like in many other countries, are multicultural societies, the issue of subcultures does not receive sufficient attention in their discussion. Different segments of the population are different not only in terms of their risk of being exposed to disasters and suffering from subsequent distress, but also in the forms that their distress takes and is expressed. To give just one example, in a recent study we examined secondary traumatization among a group of Israeli body handlers (Solomon et al., 2008). This is a unique group, consisting of

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ultra-orthodox men, who volunteer for the task of collecting, evacuating and identifying body parts and bringing them to burial. Despite their high level of exposure to horror and atrocities (most of the participants volunteered in the aftermath of more than 10 terror attacks) we were surprised to find that they reported very low levels of distress. Their levels of distress were not only lower than the average rates reported for the general population, but were also even lower than the rates reported by soldiers decorated for valor, who are considered to be the most resilient veterans. These findings suggest that these body handlers constitute a resilient group, but may also imply that the standardized instruments that we had used were not valid to assess distress in this unique group of ultra orthodox Jews. It may be that other manifestations, such as shattered world assumptions or undermined religious conviction on the one hand, or somatic illness on the other hand, would be more appropriate indicators of distress among these individuals.

In a similar vein, our assessment of veterans of the first Lebanon War in the early 1980s revealed relatively low rates of alcohol consumption in Israeli PTSD casualties (Solomon, 1993). Over the years, with cultural changes, Israelis now consume more alcohol. Not surprisingly, a recent study found that traumatization by terrorism is associated with increased alcohol consumption among Israeli youth (Schiff et al., 2007). A recent study of veterans of the second Lebanon War (Svetlicky et al., in press) also revealed increased alcohol consumption in traumatized soldiers. Had researchers implement the already used standardized old measures, they would have overlooked this outcome that clearly has considerable implications for treatment. These examples point, again, to the significance of understanding the context and local culture. This can be attained by convening community advisory committees comprised of community gatekeepers and survivors.

Cultural differences may be reflected not only in the specific expression of the problems and needs, but also in the priority allocated to each problem. The impact of disaster is often multi-faceted, and results in multiple needs. Therefore, in emergency situations, after identifying the problems, there is a need to map and prioritize the urgency of needs. Here, also, understanding the local social and cultural context is highly relevant. For example, interviews with Israeli settlers who underwent forced dislocation from the Sinai Peninsula revealed that for some communities, housing in temporary shelters (mostly tents) in close proximity to former neighbors was seen as more beneficial than proper housing in remote areas. In other less cohesive communities, housing was conceived as the most basic need to ensure a sense of well being, regardless of proximity to former neighbors. In multicultural societies, such as the US or Israel, needs assessments should be culturally sensitive to the idiosyncrasy of various communities, and the tailoring of needs assessment is required to fit each subculture. Standardization, however, may overlook such important nuances.

Although standardization is seen as one of the fundamental guiding principles of quantitative research as it entails numerous advantages, a few words of caution or even heresy are in order. Science flourishes when research develops in diverse directions, encouraging innovative breakthroughs. More specifically, while using well established standardized measures and standardized research procedures is of great value for scientific research, it should be distinguished from the standardization of conceptual thinking. The latter may jeopardize new developments, creativity, and progress. In his pioneering work, Horowitz (1976) developed an influential model describing the human reaction to stress. This model, which established the basic concept for the PTSD diagnosis, inspired a large body of research examining the interplay between intrusive and avoidance tendencies in the immediate and long-term aftermath of trauma. Clearly, Horowitz made a tremendous contribution to the current understanding and assessment of the squeala of traumatic events. Yet, in the second half of the 1980s, following the work of clinicians and researchers (e.g. Spiegel, 1984), who identified the dominance of dissociation among survivors of traumatic events, a new perspective was postulated and led to considerable research. Had the field of traumatology been restricted to Horowitz's model it would have resulted in a limited and limiting 'tunnel vision' approach and such oversight would have impeded the acquisition of knowledge and insight.

Given the cost-effectiveness and feasibility considerations, inherent in the urgent and often chaotic nature of post-disaster needs assessment, there are a few procedures that may help researchers avoid this tunnel vision. The first is using a semi-structured interviewing approach, as developed by Brown and Harris (1989). Being highly expensive and time consuming, this procedure cannot be applied in the context of urgent needs

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assessment following mass-casualties disaster, yet, it may be used as a pilot, followed by a standardized systematic survey. A second less expensive and more rapid procedure is a focused group, comprised by community gate keepers. Such a group, representing a variety of stakeholders with diverse perspectives, may elicit new understandings of the needs of the survivors. In case the hectic circumstances do not enable conducting such a group, individual interviews may be of benefit. Finally, a creative way to gain insight is to recruit an external professional who may bring a new perspective, bypassing conventional patterns of thinking. In one of our IDF projects we recruited, an independent anthropologist who casted new light on our assessment (see Cooper, 1992).

The final point that should be considered is who would benefit from standardization. As noted earlier, in each needs assessment there are many stakeholders: the survivors, the mental health professionals in the field who are supposed to conduct the survey, clinicians, their employers, decision-makers, and funding agencies. Although it is clear that a focused, quick and efficient needs assessment is of general interest and may serve all parties, standardization may also reflect the agenda of some stakeholders and overlook the needs of others. Each stakeholder has its own perspective, and thus needs are in the eye of the beholder.

Let us consider again, for example, the case of the civilians living under the persistent threat of missile attack in the West Southern region of Israel. While politicians and policy-makers would like to see normalization and routine implemented, the citizens residing in that high-risk region wish to feel safe, even if it means they must abandon their homes. For these cases, it is important not to restrict the survey to evaluating emotional distress, but as suggested by Kessler, to cast a wider net and ask the survivors, what do they think the government should do.

Another example is the case of people caught in political conflict, living in occupied territories, striving and struggling for independence. While the struggle is in their own interest, it also entails considerable disruption of daily routine. The two can be seen as conflicting but also as synergistic. Their need for order, routine, sense of safety, and control over their lives exists simultaneously with their desire and need to maintain civic disorder that serves for the advancement of their political/ideological motivation. As conceptualized by Gut (1989), emotional distress may be an adaptive reaction, as it serves as an indicator for the individual that a certain goal he or she is striving for, is not achieved. Though often without awareness, these emotions may 'mobilize efforts . . . to remedy the situation by devising new solutions (p. 32). Standardization, by nature, is likely to fail to capture this complexity and account for all viewpoints. In other cases, policy-makers and funders trying to impose their own perspectives or further their own motives may cite competing and even mutually exclusive motivations.

Another type of conflict of interests which may complicate the inherent difficulty of selecting outcomes and measures, results from a possible inherent conflict that the evaluator/researcher may experience. On the one hand the 'needs assessment' is expected to produce practical basis for intervention but on the other hand the researcher targets scientific publications. The professional journals tend to publish studies that utilize standardized measures, embedded in accepted thinking, while the need assessment should be isolated from such considerations. Another source for tension is between the survivors, who are motivated to produce an authentic description of their situation, and the treating and rehabilitating agencies, which direct the assessment to the known outcomes and diagnoses.

An example for such tension can be illustrated by our experience of assessing needs of former prisoners of war (POWs). The first assessment was initiated by the IDF, in order to evaluate the pattern, scope and intensity of distress among these veterans. As such, the choice of outcomes and measures was directed by the motivation to assess PTSD and other mental health disorders and functional difficulties (see Solomon et al., 1994b), as the IDF and Israeli Ministry of Defense, are able to provide treatment and compensation for such disorders. Seventeen years later, the Israeli exPOW Organization, initiated another need assessment, to be conducted by the same researcher. In both waves of assessment, the choice of outcome was dictated, to a great deal, by the initiating agency. While there is a substantial overlap in the selected outcomes and measures, there is also a considerable diversity. For example, since the former POWs argue that the PTSD diagnosis does not cover the entire scope of their problems, in the current wave of assessment, we also incorporated other measures, such as disorder of extreme stress not otherwise specified (DESNOS). Furthermore, other problems repeatedly identified by the exPOWs, in focus groups, as highly relevant aspects such as dependency and

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autonomy in interpersonal relations, regression to child-like role in intimate relations, etc. were also addressed.

These considerations and reservations do not distract from the general appeal and merit of the proposed center and it *modus operandi*. On the contrary we believe that such a center, under the leadership of an outstanding researcher, who can provide exceptional professional leadership, and mobilize tremendous resources, holds promise for the considerable promotion of systematic, effective and timely needs assessments. Such a model, applied first in the US, can later, under relevant modifications that will take into consideration local conditions and subcultures, be applied in other countries. Such a model would maintain the knowledge and experience gained under disaster circumstances, spread it to other areas, and prevent the too often incidences in which the same lessons are re-learned and forgotten. We believe that the advantages of the proposed center far outweigh its limitations. At the same time, we suggest that some of the inherent complexities be carefully considered before its implementation and that ongoing monitoring and re-evaluations of its guiding principles be applied in light of both the updated literature and insight gained by the center own activities.

Declaration of Interests
The authors have no competing interests.

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